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CLAIM-1 HAS BEEN CANCEL

ADD NEWLY CLAIMS-2-19

2. (New) A radial power divider/combiner comprising:

a first antenna disposed at the center of the substrate;

a plurality of waveguides, each of which extends along a respective direction between the center of the substrate and the periphery thereof; and

a plurality of second antennas, each said second antenna disposed near a respective end of a respective one of the waveguides.

3. (New) The radial power divider/combiner of claim 2, wherein the first antenna extends in a first direction from the substrate and the second antennas extend in the first direction from the substrate.

4. (New) The radial power divider/combiner of claim 2, further comprising a cover secured to the substrate, wherein the first antenna extends in a first direction from the first substrate and the second antennas extend in a second direction from the cover.

5. (New) The radial power divider/combiner of claim 4, wherein the substrate and the cover define an interior region of the divider/combiner, and wherein the first antenna and the second antennas extend into the interior region of the divider/combiner.

6. (New) The radial power divider/combiner of claim 2, wherein the waveguides comprise respective grooves in the substrate.

7. (New) The radial power divider/combiner of claim 2, wherein the first antenna is adapted to receive a signal and transmit the received signal through the waveguides to the second antennas.

8. (New) The radial power divider/combiner of claim 2, wherein each of the second antennas is adapted to receive a respective signal transmitted through the respective one of the waveguides.

9. (New) The radial power divider/combiner of claim 8, wherein each of the second antennas is electrically coupled to a respective amplifier, and is adapted to provide the respective received signal to the respective amplifier.

10. (New) The radial power divider/combiner of claim 2, wherein each of the second antennas is adapted to transmit a respective signal through the waveguides to the first antenna.

11. (New) The radial power divider/combiner of claim 10, wherein each of the second antennas is electrically coupled to a respective amplifier, and is adapted to receive a respective signal from the respective amplifier.

12. (New) A radial power divider-combiner comprising:

a radial power divider comprising:

a first substrate having a center and a periphery;

a first antenna disposed at the center of the first substrate;

a first plurality of waveguides, each of which extends along a respective direction between the center of the first substrate to the periphery thereof; and

a plurality of second antennas, each said second antenna disposed near a respective end of a respective one of the first plurality of waveguides; and

a radial power combiner comprising:

a second substrate having a center and a periphery;

a third antenna disposed at the center of the second substrate;

a second plurality of waveguides, each of which extends along a respective direction between the center of the second substrate to the periphery thereof; and

a plurality of fourth antennas, each said fourth antenna disposed near a respective end of a respective one of the second plurality of waveguides.

13. (New) The radial power divider-combiner of claim 12, further comprising a plurality of power amplifiers, each said power amplifier electrically coupled between a respective one of the second antennas and a respective one of the fourth antennas.

14. (New) The radial power divider-combiner of claim 12, wherein the first antenna is adapted to receive a signal and transmit the received signal through the first plurality of waveguides to the second antennas.

15. (New) The radial power divider-combiner of claim 12, wherein each of the second antennas is adapted to receive a respective signal transmitted through the respective one of the first plurality of waveguides.

16. (New) The radial power divider-combiner of claim 13, wherein each of the second antennas is adapted to receive a respective signal transmitted through the respective one of the first plurality of waveguides, and to provide the respective received signal to the respective amplifier.

17. (New) The radial power divider-combiner of claim 12, wherein each of the fourth antennas is adapted to transmit a respective signal through the respective one of the second plurality of waveguides to the third antenna.

18. (New) The radial power divider-combiner of claim 13, wherein each of the fourth antennas is adapted to receive a respective signal from the respective amplifier and to transmit the respective signal through the respective one of the second plurality of waveguides to the third antenna.

19. (New) A solid-state power-amplifier module comprising:

a radial power divider comprising:

a first substrate having a center and a periphery;

a first antenna disposed at the center of the first substrate;

a first plurality of waveguides, each of which extends along a respective direction between the center of the first substrate to the periphery thereof; and

a plurality of second antennas, each said second antenna disposed near a respective end of a respective one of the first plurality of waveguides; and

a radial power combiner comprising:

a second substrate having a center and a periphery;

a third antenna disposed at the center of the second substrate;

a second plurality of waveguides, each of which extends along a respective direction between the center of the second substrate to the periphery thereof; and

a plurality of fourth antennas, each said fourth antenna disposed near a respective end of a respective one of the second plurality of waveguides;

a signal generator that provides an input signal to the first antenna; and

a signal receiver that receives an amplified signal from the third antenna.